Resources Inventory and GIS

Introduction to Digital Remote Sensing (RGIS 654)

Overview

This course introduces employees to remotely sensed digital imagery, with a focus on evaluating, selecting, procuring, interpreting, and utilizing digital imagery for NRCS applications. It includes an introduction to digital image processing techniques in a GIS environment and a review of global positioning systems (GPS) technology.

Objectives

Upon completion of this training, participants will be able to:

1. explain the physical basis and fundamental concepts of remote sensing.

2. list and describe currently available sources of remotely sensed data.

3. list the characteristics of the following remote sensing platforms: videography, satellite multispectral scanners, thermal infrared scanners, and microwave scanners. Describe how these platforms can be used to support NRCS programs.

4. describe the major concepts and most common techniques used in digital image processing.

5. explain, in general terms, how GPS and LORAN-C work, and describe potential applications.

Prerequisites

Familiarity with the basic concepts of Geograhical Information Systemand Basic Photo Interpretation is recommended, but not required.

Duration

1 week

Eligibility

State, and Area GIS Specialists, or other technical specialists with GIS or Remote Sensing responsibilities may attend.

West-wide Snow Survey Training School (RGIS 900)

Overview

Classroom subjects include history of snow surveys; NRCS mission and snow surveys; snow sampling; note keeping; over-snow travel; safety; emergency shelter construction; principles of survival; avalanche hazard recognition, assessment, and avoidance; first aid; SNOTEL theory and operation; and data accessing and uses. Outdoor laboratory exercises include snow machine operation and maintenance; helicopter safety; snow survey techniques; and an overnight bivouac in the snow using individual shelters constructed by trainees.

Objectives

Upon completion of this training, participants will be able to:

1. use correct procedures to obtain snow survey data and complete field notes.

2. conduct all survey activities safely and effectively, choose proper travel mode to data sites, recognize natural hazards and exercise appropriate avoidance.

3. construct emergency winter survival shelters and successfully bivouac in a snow-covered environment.

4. describe the basic emergency first aid procedures needed for injuries and illnesses commonly encountered on snow surveys.

Upon completion, participants should be able to perform at ASK Level 4, Perform Independently.

Prerequisites

Personal health and physical conditioning necessary to travel on snow using snowshoes or skis and carrying a full field pack, an annual physical examination (NRCS personnel), current Red Cross Multimedia Standard First Aid Course (or its equivalent), and a CPR training course

Duration

1 week

Eligibility

Personnel engaged in snow surveying or who travel and work in remote mountainous terrain in winter may attend. Cooperating agencies and organizations' personnel who conduct snow surveys or have winter mountain environment activities may also attend.